Performance of the partial STAR-SVT(Silicon Vertex Tracker) in the RHIC 2000 run

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Abstract

The Silicon Vertex Tracker(SVT), made of silicon drift detectors, is one of the subsystems of the STAR detector at RHIC. Being the innermost detector, it will help in determining the primary vertex and distinguishing particles from secondary decays. Due to its high position resolution, it will help in tracking short lived strange and multistrange particles and will improve two track resolution which is very important to HBT studies. Also the SVT will enable STAR to cover the very low momentum part of the pion spectrum, potentially on an event-by-event basis. Possible condensation effects,e.g. DCC or BEC, could thus be detected. For the summer 2000 run, a ladder with 7 wafers was installed and took data. Analysis of this data show that the SVT detector is working as expected. This emphasizes the fact that with the installation of the full SVT in time for the second year run, STAR will be able to improve on the physics program already initiated with the baseline detectors. We will present analysis results of real data and also data obtained with the SVT slow simulator.

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